

MIIC2021

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# 2020-2021 : COURSE OUTLINE

SESSION 1 : why R? (Why the hell would I code?)

SESSION 2 : Data Visualisation (R made more fun)

SESSION 3 : Basic Text Mining

SESSION 4 : Basic Data mining : from frequency counts to natural language??

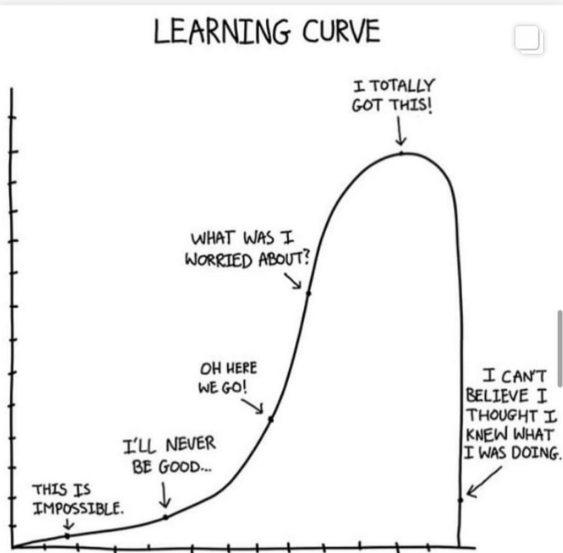
SESSION 5 : Basic MODELLING

SESSION 6 : WRAPPING IT UP / Google analytics with the R package?

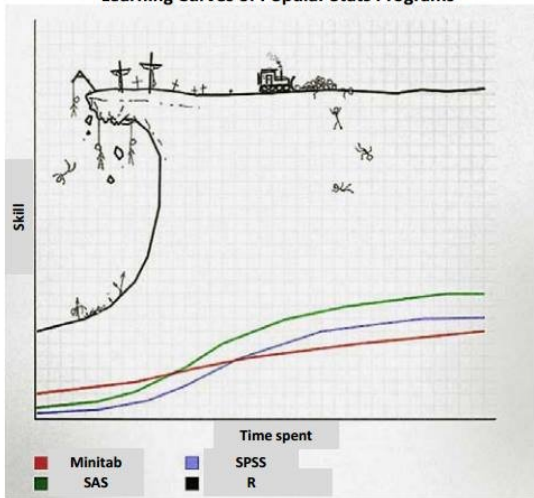
# SESSION 1 : Why R? R (Why the hell would I code?)

# 1. programming language with the command line

## Learning curves



## Learning Curves of Popular Stats Programs



<https://twitter.com/rogierk/status/730863729420701697>

# Why R?

R vs Python (Scala, go for Docker, and others) ?

the Sky's the limit

(other jobs)

computer scientists / data scientists / programmers/ engineers

Number of packages

against R

quirky

the Arrgh blog

<http://arrgh.tim-smith.us/syntax.html>

## Install R and RStudio

<https://remibacha.com/data-science-r-seo-guide/>

Download R

Download R for mac

Download Rstudio



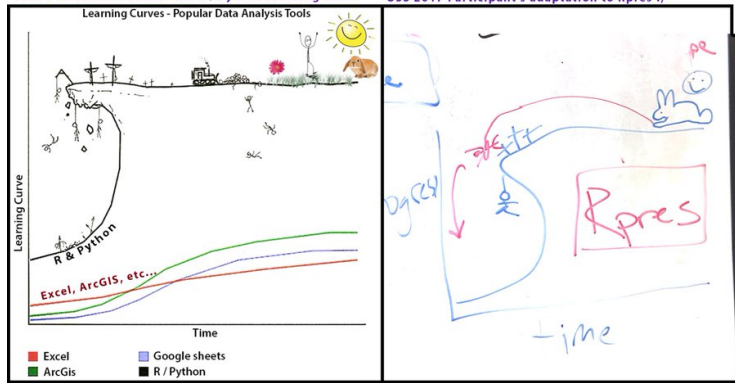
# A MINUTE TO UNDERSTAND, A LIFETIME TO MASTER

“learning curve”: a meme, not a myth !

<https://twitter.com/leahawasser/status/890604301508157441>

Leah's Scientific Model of the R / Python Learning Curve

OSS 2017 Participant's adaptation to Rpres :)



## 2. An object-oriented programming language

SYNTAX : `object <- function(argument)`

object types

`class()`

`summary(object)`

`getwd()` # where am I?

### 3. libraries and functions

{Rpackage}

function()

data

datasets

{dply}

DRILLS Comment what the function does

```
getwd()
```

```
colours <- c("black", "red", "pink")
```

*## Addition*

$3+2$

## [1] 5

*## Multiplication*

$4*5$

## [1] 20

*#[1] 20*

*## Exponentiation*

$10^3$

## [1] 1000

*#[1] 1000*

*## Division*

$1 / 0$

## [1] Inf

*# [ 1 ] In f*

# INTERNAL FUNCTIONS

```
# to erase all objects
```

```
#rm(list=ls())
```

```
# where am I? ## to know where your files are saved
```

```
getwd()
```

```
## [1] "/Users/nballier/Desktop/MIIC/data-GoogleAnalytics/1"
```

```
## set this directory as working directory
```

```
setwd("~/Desktop/MIIC/data-GoogleAnalytics/bis")
```

```
# to install the package called {quanteda}
```

```
#install.packages("quanteda")
```

```
#install.packages("tidyverse")
```

```
library(quanteda)
```

```
## Warning: package 'quanteda' was built under R version 3.
```